ecology and environment, inc.
International Specialists in the Environment

33 North Dearborn Street
Chicago, Illinois 60602
Tel. 312/578-9243, Fax: 312/578-9345

M E M O R A N D U M

DATE: October 9, 2000

TO: Justin Bowerman, START Project Manager, E & E, Cleveland, Ohio

FROM: David Hendren, START Analytical Services Manager, E & E, Chicago, Illinois

THROUGH: Patrick Zwilling, START Assistant Program Manager, E & E, Chicago, Illinois

SUBJECT: Organic Data Quality Review for Volatile Organic Compounds (VOCs), Sam Winer Motors Property, Summit Township, Springfield County, Ohio

REFERENCE: Project TDD S05-0007-014 Analytical TDD S05-0007-808
Project PAN 0U1401SIXX Analytical PAN 0UAH01TAXX

The data quality assurance (QA) review of 28 soil and two water samples collected from the Sam Winer Motors Property site is complete. The samples were collected on August 14 and 15, 2000, by the Superfund Technical Assessment and Response Team (START) contractor, Ecology and Environment, Inc. (E & E). The samples were submitted to EIS Analytical Services, Inc., South Bend, Indiana. The laboratory analyses were performed according to the United States Environmental Protection Agency (U.S. EPA) Solid Waste 846 Method 8260.

Sample Identification

START Identification No.	Laboratory Identification No.
SS-OSC-21A	70311
SS-OSC-21B	70312
SS-OSC-21C	70313
SS-OSC-22	70314
SS-OSC-23	70315
SS-OSC-24A	70316
SS-OSC-24B	70317
SS-OSC-25A	70318
SS-OSN-01	70319
SS-OSN-02	70320

START Identification No.	Laboratory Identification No.
SS-OSE-06	70321
SS-OSE-07	70322
SS-OSE-08A	70323
SS-OSE-08B	70324
SS-OSE-09	70325
SS-OSS-11	70326
SS-OSS-12	70327
SS-OSW-16	70328
SS-OSW-17	70329
SS-OSW-18	70330
SS-OSW-19	70331
SS-OSW-20	70332
SS-OSN-03	70333
SS-OSE-10	70334
SS-DD-26	70335
SS-OSE-28	70336
SS-OSE-30	70337
SS-OSE-29	70338
GW-OS-01	70339
GW-OS-02	70340

Data Qualifications:

I. Sample Holding Time: Acceptable

The samples were collected on August 14 and 15, 2000, and analyzed between Agust 21 and 24, 2000. This is within the 14-day holding time limit.

II. Gas Chromatography/Mass Spectrometry (GC/MS) Tuning: Acceptable

GC/MS tuning to meet ion abundance criteria using bromofluorobenzene (BFB) were acceptable and samples were analyzed within 12 hours of BFB tuning.

III. Calibrations:

• Initial Calibration: Qualified

A five-point initial calibration was performed prior to analysis. All average response factors were greater than 0.05 except acrolein and cyclohexanone; therefore, the nondetect values for these compounds have been flagged "R", as required. The percent relative standard deviations

(%RSDs) between response factors were less than 30% for all detected target compounds.

• Continuing Calibration: Acceptable

The percent differences of the response factors were less than 25%, as required for detected target compounds.

IV. Blank: Acceptable

A method blank was analyzed with the samples. No target compounds or contaminants were detected in the blank.

V. Internal Standards: Acceptable

The areas of the internal standards in the samples were within -50% to +100% of the associated calibration check standard. The retention times of the internal standards were within the 30-second control limit.

VI. Compound Identification: Acceptable

The mass spectra and retention times of the detected compounds matched those of the standards.

VII. Additional QC Checks: Acceptable

The recoveries of the surrogates used in the samples and blank were within laboratory-established guidelines.

VIII. Overall Assessment of Data for Use: Acceptable

The overall usefulness of the data is based on criteria for QA Level II as outlined in the Office of Solid Waste and Emergency Response (OSWER) Directive 9360.4-01 (April 1990), Data Validation Procedures, Section 5.0, VOAs By GC/MS analysis. Based upon the information provided, the data are acceptable for use, with the above-stated qualifications.

Data Qualifiers and Definitions:

R - The sample results are rejected (analyte may or may not be present) due to gross deficiencies in quality control criteria. Any reported value is unusable. Resampling and/or reanalysis is necessary for verification.